

**Abstract:** The vast majority of all volcanic eruptions on earth occur far from view at the oceanic spreading centers that encircle the globe. Given the inaccessibility of this environment to direct observation, only a handful of mid-ocean ridge eruptions have been detected to date. In summer 2008, the first multi-streamer multi-channel seismic investigation of the Columbia's R/V Langseth was conducted, imaging the magma reservoir beneath a portion of the East Pacific Rise where two documented eruptions have occurred in the last 20 years. This study provides a 3D image of unprecedented resolution of the magma body in the upper-mid crust beneath a mid-ocean ridge. During this talk I will give an overview on new insights into the dynamics of mid-ocean ridge eruptions and the architecture of the crustal magmatic system emerging from this study.